

User Manual

Revision 1.100

English

EtherNet/IP / PROFIBUS Master - Converter

(Order Code: HD67593-A1)

For Website information:

www.adfweb.com/?Product=HD67593

For Price information:

www.adfweb.com/?Price=HD67593-A1

Benefits and Main Features:

- ✚ PROFIBUS up to 6Mbps
- ✚ Temperature range: -40°C/+85°C (-40°F/+185°F)



User Manual

For others EtherNet/IP products see also the following link:

Converter EtherNet/IP to

www.adfweb.com?Product=HD67077
www.adfweb.com?Product=HD67091
www.adfweb.com?Product=HD67159
www.adfweb.com?Product=HD67174
www.adfweb.com?Product=HD67588
www.adfweb.com?Product=HD67589
www.adfweb.com?Product=HD67590
www.adfweb.com?Product=HD67591
www.adfweb.com?Product=HD67594
www.adfweb.com?Product=HD67595
www.adfweb.com?Product=HD67596
www.adfweb.com?Product=HD67597
www.adfweb.com?Product=HD67598
www.adfweb.com?Product=HD67599
www.adfweb.com?Product=HD67627
www.adfweb.com?Product=HD67660
www.adfweb.com?Product=HD67663
www.adfweb.com?Product=HD67664
www.adfweb.com?Product=HD67682
www.adfweb.com?Product=HD67722
www.adfweb.com?Product=HD67744
www.adfweb.com?Product=HD67771
www.adfweb.com?Product=HD67807
www.adfweb.com?Product=HD67840
www.adfweb.com?Product=HD67871
www.adfweb.com?Product=HD67906
www.adfweb.com?Product=HD67945
www.adfweb.com?Product=HD67974
www.adfweb.com?Product=HD67B16
www.adfweb.com?Product=HD67B39
www.adfweb.com?Product=HD67B78
www.adfweb.com?Product=HD67C63
www.adfweb.com?Product=HD67D25
www.adfweb.com?Product=HD67E27
www.adfweb.com?Product=HD67E77
www.adfweb.com?Product=HD67F25

(M-Bus)
(M-Bus Wireless)
(SNMP Agent)
(SNMP Manager)
(DMX)
(NMEA 2000)
(Serial)
(Modbus Master)
(PROFIBUS Slave)
(CAN)
(CANopen)
(DeviceNet Master)
(DeviceNet Slave)
(J1939)
(S7comm)
(PROFINET)
(Modbus TCP Slave)
(Modbus TCP Master)
(BACnet Slave)
(BACnet Master)
(IEC 61850 Server)
(IEC 61850 Client)
(KNX)
(DALI)
(IO-Link Master)
(HART)
(MQTT)
(IO-Link Slave)
(OPC UA Client)
(OPC UA Server)
(PROFINET Master)
(EnOcean)
(LoRaWAN)
(EtherCAT Slave)
(EtherCAT Master)
(LoRaWAN Gateway)

INDEX:

	Page
INDEX	2
UPDATED DOCUMENTATION	2
REVISION LIST	2
WARNING	2
TRADEMARKS	2
SECURITY ALERT	3
EXAMPLE OF CONNECTION	4
CONNECTION SCHEME	5
CHARACTERISTICS	6
CONFIGURATION	6
POWER SUPPLY	7
FUNCTION MODES	8
LEDS	9
PROFIBUS	10
ETHERNET	10
USE OF COMPOSITOR SW67593	12
NEW CONFIGURATION / OPEN CONFIGURATION	12
SET COMMUNICATION	13
PROFIBUS NETWORK	14
MASTER PROFIBUS OPTIONS	15
PROFIBUS DEVICE	16
- MODULE SELECTION	17
- USER PARAMETERS	19
- MODULE PARAMETERS	21
- CAPABILITIES	22
- OPTIONS	23
OFFSET	24
UPDATE DEVICE	25
MECHANICAL DIMENSIONS	27
ORDER CODE	28
ACCESSORIES	28
PLC CONFIGURATION	29
DISCLAIMER	33
OTHER REGULATIONS AND STANDARDS	33
WARRANTIES AND TECHNICAL SUPPORT	34
RETURN POLICY	34

UPDATED DOCUMENTATION:

Dear customer, we thank you for your attention and we remind you that you need to check that the following document is:

- Updated;
- Related to the product you own.

To obtain the most recently updated document, note the “document code” that appears at the top right-hand corner of each page of this document.

With this “Document Code” go to web page www.adfweb.com/download/ and search for the corresponding code on the page. Click on the proper “Document Code” and download the updates.

REVISION LIST:

Revision	Date	Author	Chapter	Description
1.010	06/12/2012	Fl	All	Software changed (v1.000)
1.011	09/01/2013	Nt	All	Added new chapters
1.100	05/05/2025	Ln	All	New design

WARNING:

ADFweb.com reserves the right to change information in this manual about our product without warning.
ADFweb.com is not responsible for any error this manual may contain.

TRADEMARKS:

All trademarks mentioned in this document belong to their respective owners.

SECURITY ALERT:**GENERAL INFORMATION**

To ensure safe operation, the device must be operated according to the instructions in the manual. When using the device are required for each individual application, legal and safety regulation. The same applies also when using accessories.

INTENDED USE

Machines and systems must be designed so the faulty conditions do not lead to a dangerous situation for the operator (i.e. independent limit switches, mechanical interlocks, etc.).

QUALIFIED PERSONNEL

The device can be used only by qualified personnel, strictly in accordance with the specifications.

Qualified personnel are persons who are familiar with the installation, assembly, commissioning and operation of this equipment and who have appropriate qualifications for their job.

RESIDUAL RISKS

The device is state of the art and is safe. The instrument can represent a potential hazard if they are inappropriately installed and operated by personnel untrained. These instructions refer to residual risks with the following symbol:

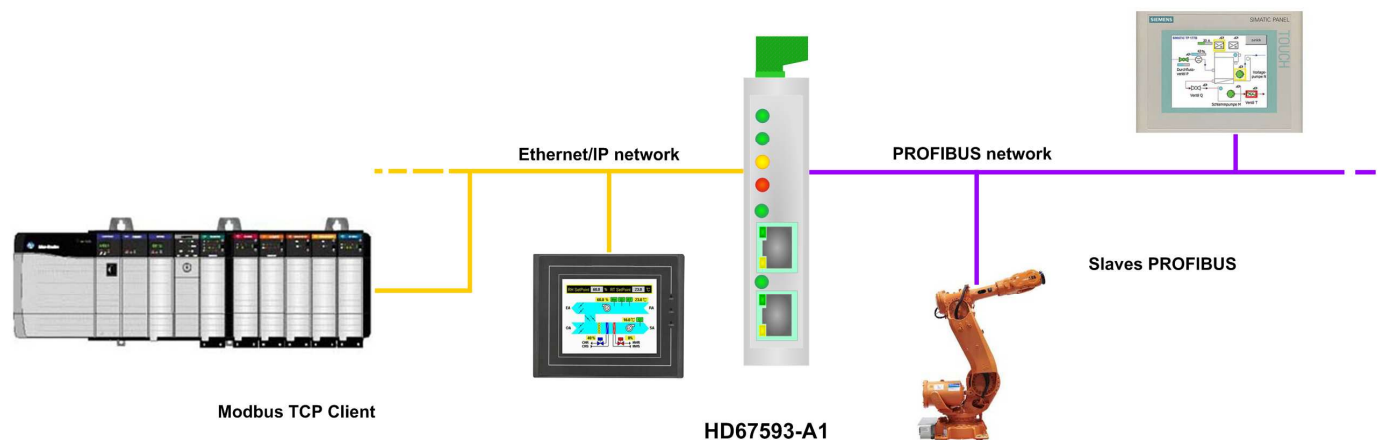


This symbol indicates that non-observance of the safety instructions is danger for people to serious injury or death and / or the possibility of damage.

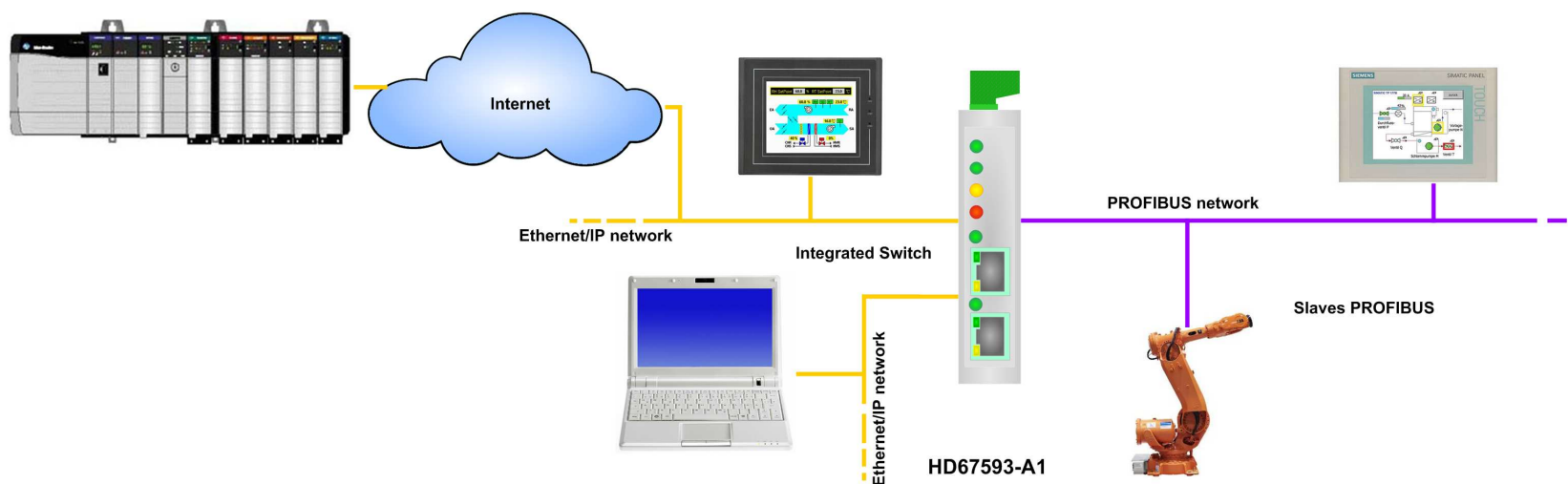
CE CONFORMITY

The declaration is made by us. You can send an email to support@adfweb.com or give us a call if you need it.

EXAMPLE OF CONNECTION:



Used with only one Ethernet connection.



CONNECTION SCHEME:

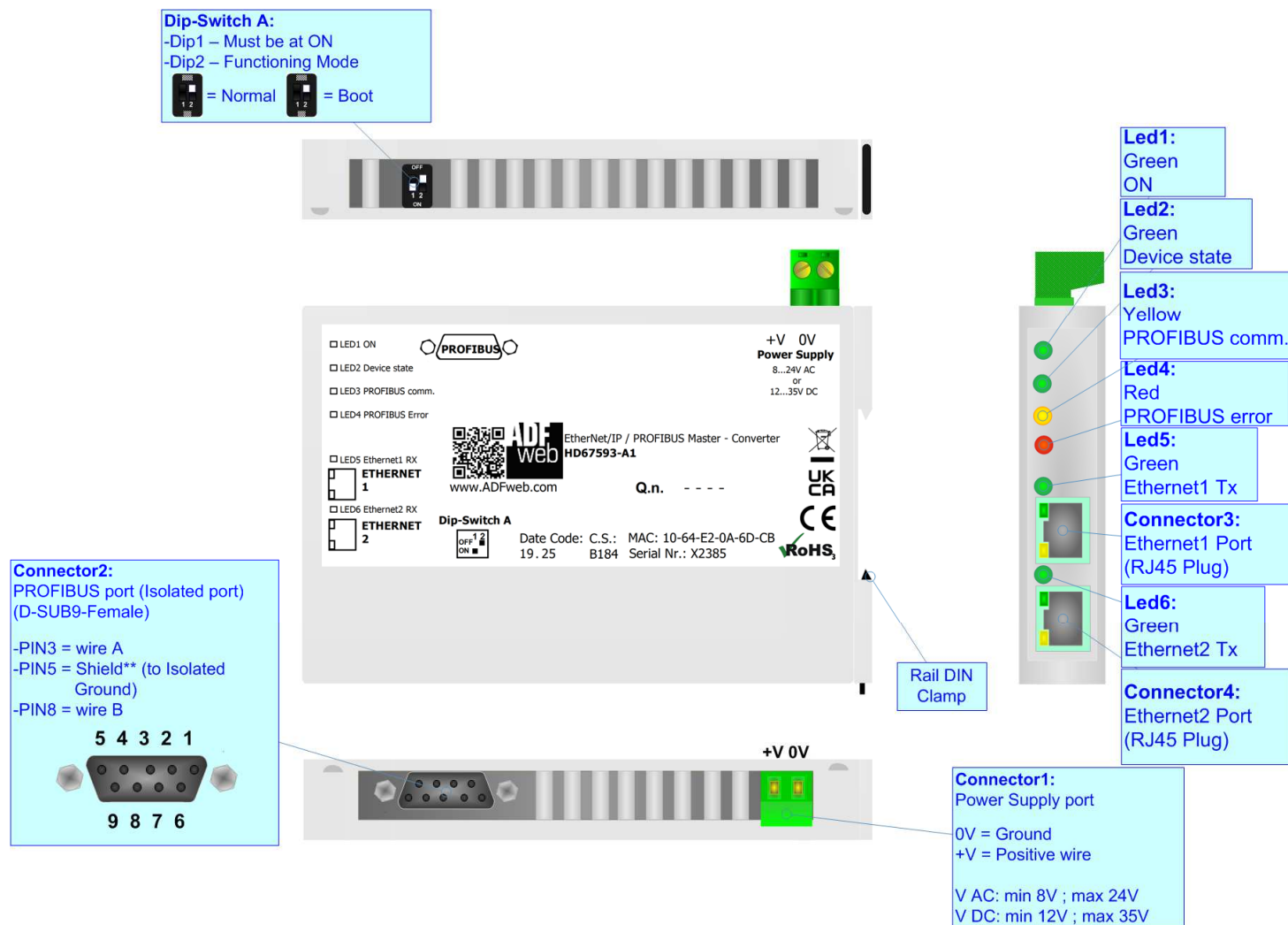


Figure 1: Connection scheme for HD67593-A1

CHARACTERISTICS:

The HD67593-A1 is a EtherNet/IP / PROFIBUS Master Converter.

It allows for the following characteristics:

- Triple isolation between EtherNet/IP /PROFIBUS, EtherNet/IP /Power Supply, PROFIBUS/Power Supply.
- Mountable on 35mm Rail DIN;
- Wide power supply input range: 8...24V AC or 12...35V DC;
- Wide temperature range: -40°C / +85°C [-40°F / +185°F];
- Up to 496 bytes from EtherNet/IP to PROFIBUS (IN);
- Up to 496 bytes from PROFIBUS (OUT) to EtherNet/IP;
- Ethernet switch for enter/exit connection.



CONFIGURATION:

You need Compositor SW67593 software on your PC in order to perform the following:

- Define the parameter of the PROFIBUS;
- Define the parameter of the EtherNet/IP;
- Define the PROFIBUS network;
- Define which bytes pass from PROFIBUS to EtherNet/IP;
- Define which bytes pass from EtherNet/IP to PROFIBUS.

POWER SUPPLY:

The devices can be powered at 8...24V AC and 12...35V DC. For more details see the two tables below.

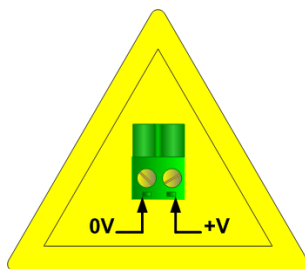
	VAC 		VDC 	
	Vmin	Vmax	Vmin	Vmax
HD67593-A1	8V	24V	12V	35V

Consumption at 24V DC:

Device	W/VA
HD67593-A1	3.5

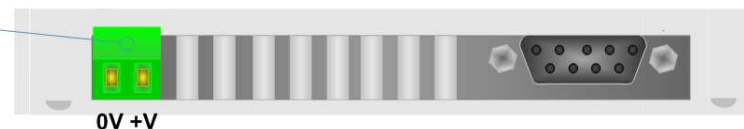


Caution: Do not reverse the polarity power



HD67593-A1

Connector1:
Power Supply port
0V = Ground
+V = Positive wire
V AC: min 8V ; max 24V
V DC: min 12V ; max 35V



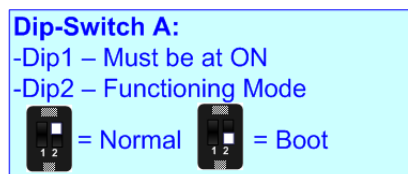
FUNCTION MODES:

The device has got two functions mode depending of the position of the Dip2 of 'Dip-Switch A':

- The first, with Dip2 in Off position (factory setting), is used for the normal working of the device.
- The second, with Dip2 in On position, is used for upload the Project/Firmware.

For the operations to follow for the updating (see 'UPDATE DEVICE' section).

According to the functioning mode, the LEDs will have specifics functions (see 'LEDS' section).

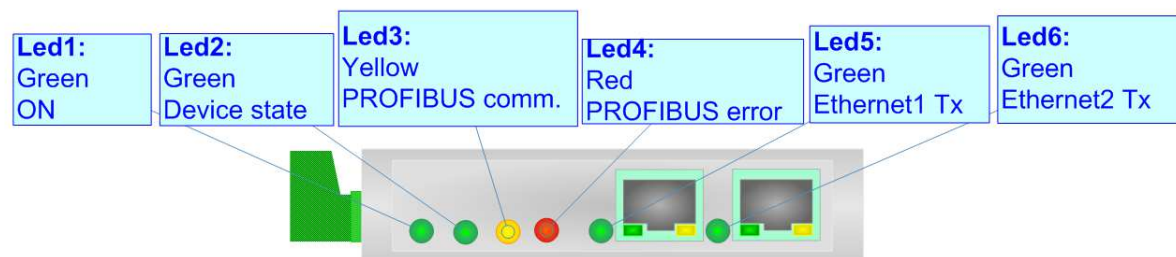
**Warning:**

Dip1 of 'Dip-Switch A' must be at ON position for working even if the Ethernet cable isn't inserted.

LEDS:

The device has got six LEDs that are used to give information of the functioning status.
The various meanings of the LEDs are described in the table below.

LED	Normal Mode	Boot Mode
1: Power (green)	ON: Device powered OFF: Device not powered	ON: Device powered OFF: Device not powered
2: Device State (green)	Blinks slowly (~1Hz)	Blinks quickly: Boot state Blinks very slowly (~0.5Hz): update in progress
3: PROFIBUS comm. (yellow)	Blinks quickly: PROFIBUS communication with slaves OFF: No PROFIBUS communication with slaves	Blinks quickly: Boot state Blinks very slowly (~0.5Hz): update in progress
4: PROFIBUS error (red)	ON: Device not able to communicate with at least one PROFIBUS Slave OFF: Not Powered	Blinks quickly: Boot state Blinks very slowly (~0.5Hz): update in progress
5: Ethernet1 Rx (green)	Blinks when is receiving Ethernet frames	Blinks quickly: Boot state Blinks very slowly (~0.5Hz): update in progress
6: Ethernet2 Rx (green)	Blinks when is receiving Ethernet frames	Blinks quickly: Boot state Blinks very slowly (~0.5Hz): update in progress



PROFIBUS:

The PROFIBUS uses a 9-pin D-SUB connector. The pin assignment is defined like in the right figure.

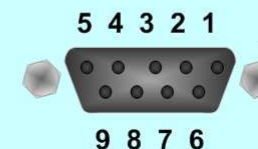
Here some codes of cables:

- Belden: p/n 183079A - Continuous Armor DataBus® ISA/SP-50 PROFIBUS Cable.



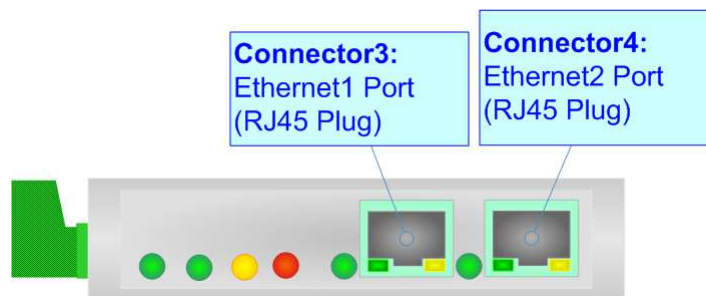
Connector2:
PROFIBUS port (Isolated port)
(D-SUB9-Female)

-PIN3 = wire A
-PIN5 = Shield** (to Isolated Ground)
-PIN8 = wire B



ETHERNET:

The EtherNet/IP connection must be made using Connector3 and/or Connector4 of HD67593-A1 with at least a Category 5E cable. The maximum length of the cable should not exceed 100m. The cable has to conform to the T568 norms relative to connections in cat.5 up to 100 Mbps. To connect the device to an Hub/Switch is recommended the use of a straight cable, to connect the device to a PC/PLC/other is recommended the use of a cross cable.



USE OF COMPOSITOR SW67593:

To configure the Converter, use the available software that runs with Windows called SW67593. It is downloadable on the site www.adfweb.com and its operation is described in this document. *(This manual is referenced to the last version of the software present on our web site)*. The software works with MSWindows (XP, Vista, Seven, 8, 10 or 11; 32/64bit).

When launching the SW67593, the window below appears (Fig. 2).



Note:

It is necessary to have installed .Net Framework 4.

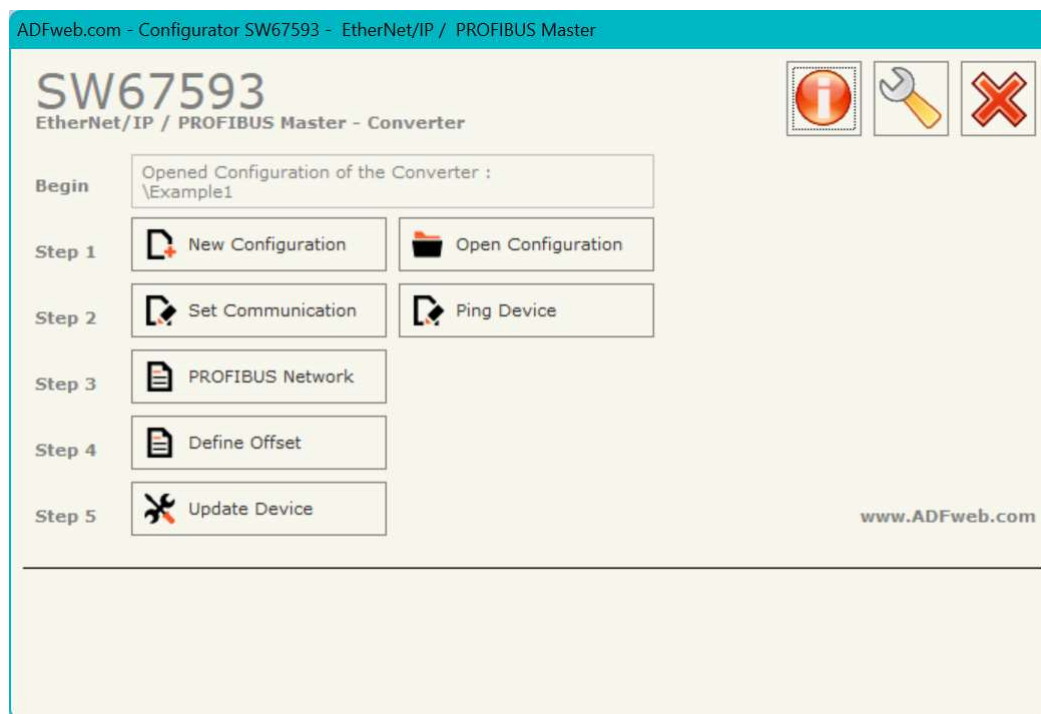
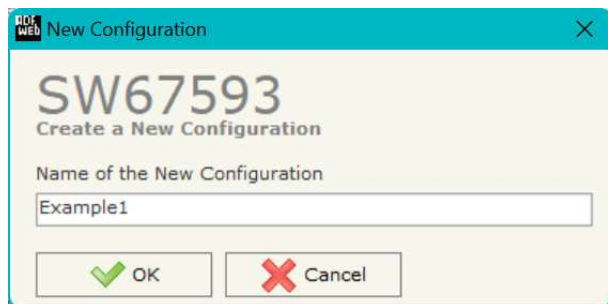


Figure 2: Main window for SW67593

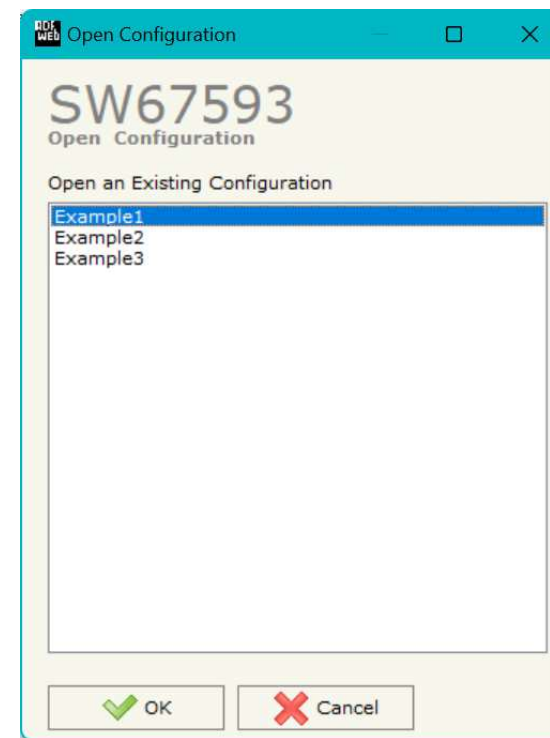
NEW CONFIGURATION / OPEN CONFIGURATION:

The “**New Configuration**” button creates the folder which contains the entire device’s configuration.



A device’s configuration can also be imported or exported:

- To clone the configurations of a Programmable “EtherNet/IP / PROFIBUS Master - Converter” in order to configure another device in the same manner, it is necessary to maintain the folder and all its contents;
- To clone a project in order to obtain a different version of the project, it is sufficient to duplicate the project folder with another name and open the new folder with the button “**Open Configuration**”.



SET COMMUNICATION:

This section defines the fundamental communication parameter of two buses, PROFIBUS and EtherNet/IP.

By pressing the **"Set Communication"** button from the main window for SW67593 (Fig. 2) the window "Set Communication" appears (Fig. 3).

The window is divided in two sections, one for the PROFIBUS and the other for the EtherNet/IP.

The means of the fields for "PROFIBUS" are:

- In the field **"ID Dev."** the address of the PROFIBUS side is defined;
- In the field **"Baudrate"** the baud rate for the PROFIBUS side is defined;
- If the field **"Send Sync"** is checked, the converter will send Sync signal at every cycle;
- If the field **"Send Freeze"** is checked, the converter will send Freeze signal at every cycle.

The means of the fields for "EtherNet/IP " are:

- In the fields **"IP ADDRESS"** insert the IP address that you want to give to the Converter;
- In the fields **"SUBNET Mask"** insert the SubNet Mask;
- In the fields **"GATEWAY"** insert the default gateway that you want to use. This feature can be enabled or disabled pressing the Check Box field. This feature is used for going out of the net;
- In the field **"Port"** the port used for EtherNet/IP communication is defined. The port has a fixed value of 44818;
- In the field **"Number Byte IN"** the number of byte from the EtherNet/IP to the Converter is defined (at maximum it is possible to use 496 byte);
- In the field **"Number Byte OUT"** the number of byte from the Converter to the EtherNet/IP is defined (at maximum it is possible to use 496 byte).

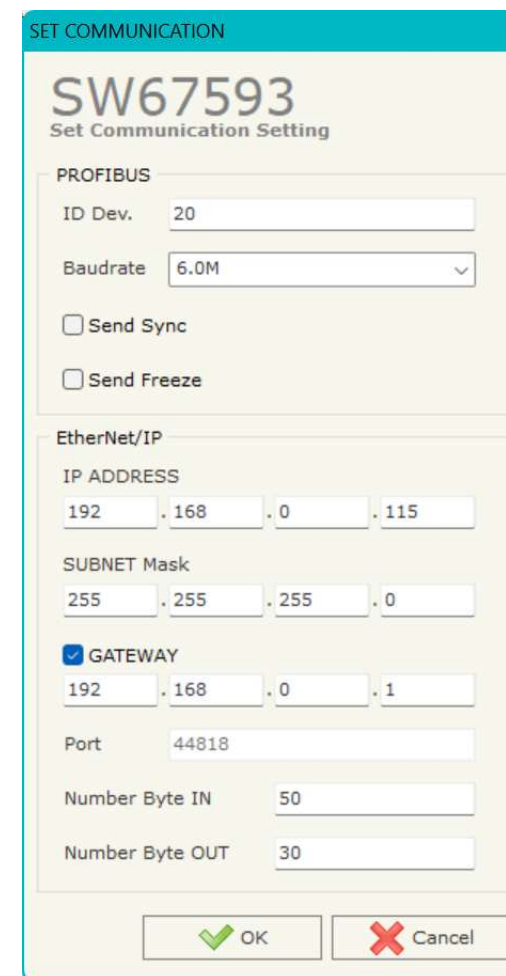


Figure 3: "Set Communication" window

PROFIBUS NETWORK:

By pressing the "**PROFIBUS Network**" button from the main window for SW67593 (Fig. 2) the window "PROFIBUS Network" (Fig. 4) appears.

In this window is possible to:

- Modify the PROFIBUS Master Options ("**Master PROFIBUS Options**");
- Add a PROFIBUS Slave in the Network ("**Add Slave PROFIBUS**");
- Modify a PROFIBUS Slave in the Network ("**Modify Slave PROFIBUS**");
- Remove a PROFIBUS Slave from the Network ("**Remove Slave PROFIBUS**").

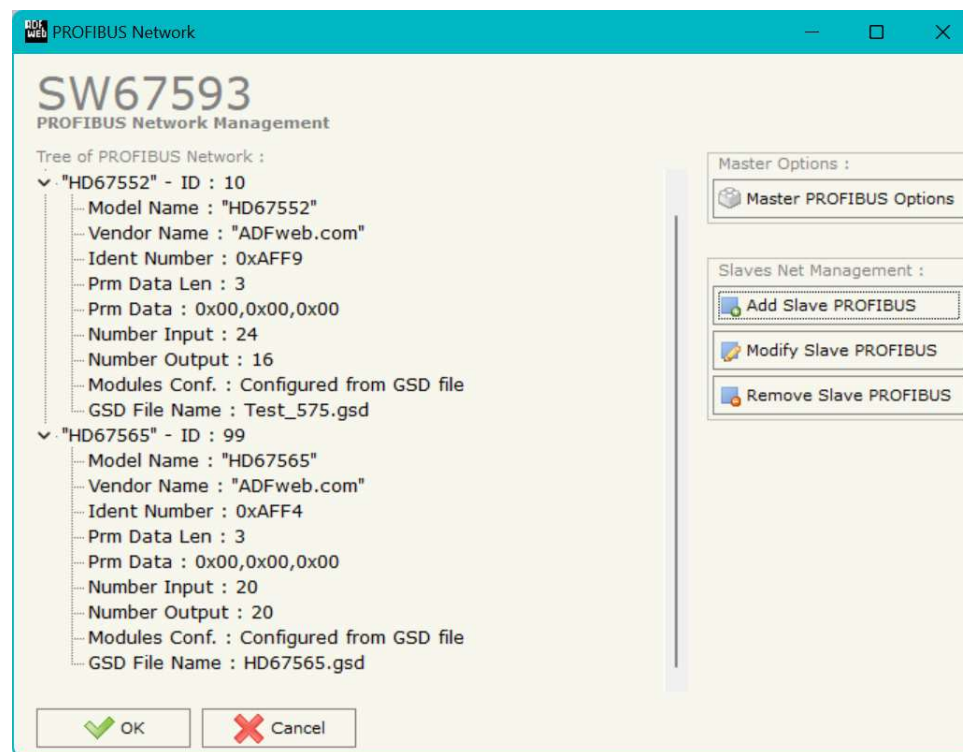


Figure 4: "PROFIBUS Network" window

MASTER PROFIBUS OPTIONS:

By pressing the "**Master PROFIBUS Options**" button from the "PROFIBUS Network" window (Fig. 4) the "PROFIBUS Master Options" window appears (Fig. 5).

In this window is possible to set the WatchDog Time for the PROFIBUS Slaves.



Figure 5: "PROFIBUS Master Options" window

**Note:**

Fact1 and Fact2 could be write in decimal o hexadecimal (with prefix "0x" or "\$") and the values must be between 1 and 255

**Warning:**

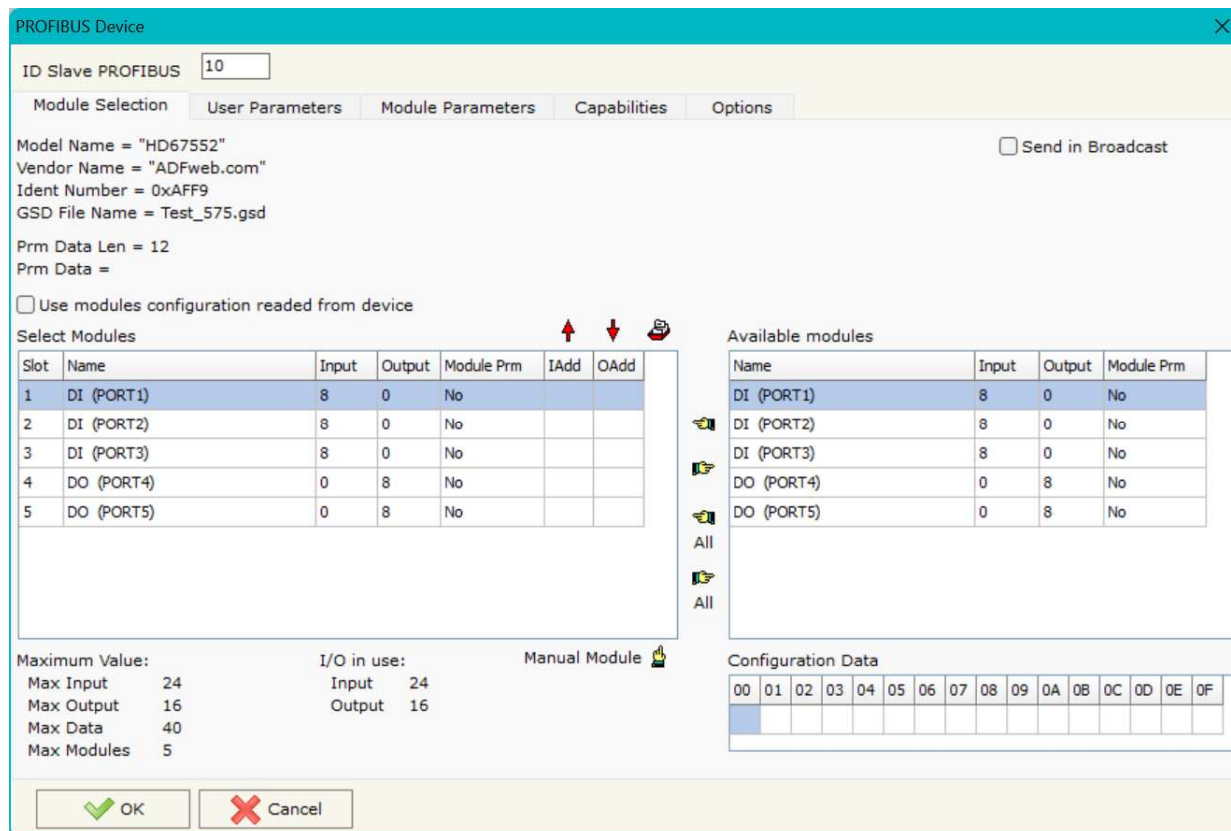
The WatchDog time must be between 200 and 650250 milliseconds.

PROFIBUS DEVICE:

By pressing the **"Add Slave PROFIBUS"** and **"Modify Slave PROFIBUS"** button (or double click above an existent PROFIBUS Slave) from the "PROFIBUS Network" window (Fig. 4) the "PROFIBUS Device" window appears (Fig. 6).

In this window is possible to:

- Set the PROFIBUS Slave ID (**"ID Slave PROFIBUS"**);
- Select the Modules present in the PROFIBUS Slave from the Available Modules in GSD file (**"Module Selection"**);
- Modify the User Parameters (if present) of the PROFIBUS device (**"User Parameters"**);
- Modify the Parameters (if present) of the Module Selected (**"Module Parameters"**);
- Watch Features and Baudrate supported from the PROFIBUS device (**"Capabilities"**);
- Select the Sync, Freeze and Reset of Data Options (**"Options"**).



PROFIBUS Device

ID Slave PROFIBUS: 10

Module Selection | User Parameters | Module Parameters | Capabilities | Options

Model Name = "HD67552"
Vendor Name = "ADFweb.com"
Ident Number = 0xAFF9
GSD File Name = Test_575.gsd

☐ Send in Broadcast

Prm Data Len = 12
Prm Data =

☐ Use modules configuration readed from device

Select Modules

Slot	Name	Input	Output	Module Prm	IAdd	OAdd
1	DI (PORT1)	8	0	No		
2	DI (PORT2)	8	0	No		
3	DI (PORT3)	8	0	No		
4	DO (PORT4)	0	8	No		
5	DO (PORT5)	0	8	No		

Available modules

Name	Input	Output	Module Prm
DI (PORT1)	8	0	No
DI (PORT2)	8	0	No
DI (PORT3)	8	0	No
DO (PORT4)	0	8	No
DO (PORT5)	0	8	No

Configuration Data

00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F

Maximum Value: Max Input 24, Max Output 16, Max Data 40, Max Modules 5

I/O in use: Input 24, Output 16

Manual Module

OK Cancel

Figure 6: "PROFIBUS Device" window

MODULE SELECTION:

The section "Module Selection" is used to select which Modules are present in the Slave (Fig. 7).

In this section is possible to:

- Check the list of the Modules selected ("Select Modules") (Fig. 7, point (1)) and the list of Modules Available in GSD file ("Available Modules") (Fig. 7, point (7));
- Add a Module from the list of GSD file (Fig. 7, point (6));
- Remove a Module from selected list (Fig. 7, point (5));
- Add all Modules present in the GSD file (Fig. 7, point (4));
- Remove all Modules from selected list (Fig. 7, point (3));
- Insert a Module not present in the GSD file ("**Manual Module**") (Fig. 7 point (2)). For more info see the section "Manual Module" below;
- Enable the read of configuration directly from the PROFIBUS Slave ("**Use module configuration readed from device**") (Fig 7, point (8)). If this option is enable the configuration of the modules is discarded and the device read the correct configuration directly to the PROFIBUS slave.

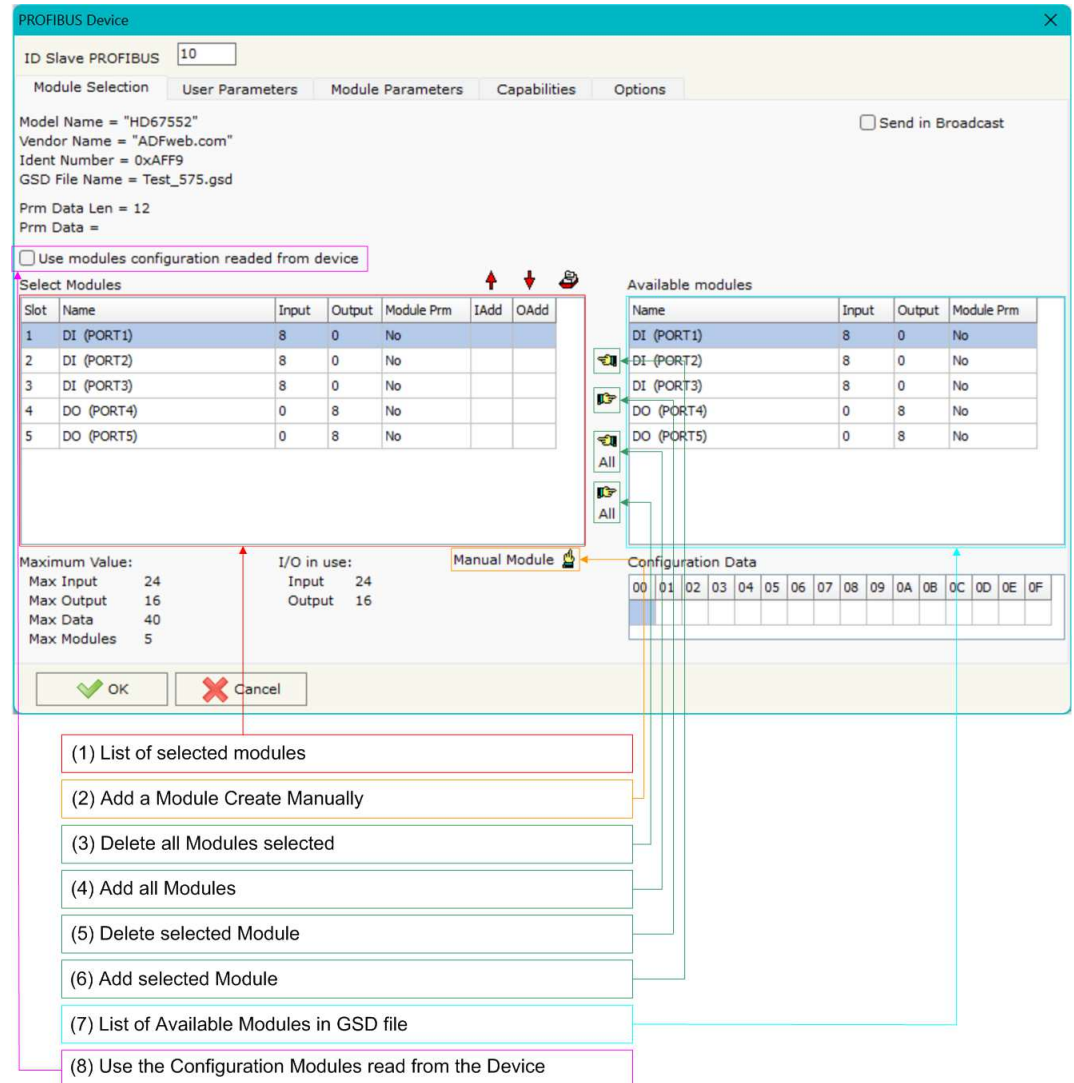


Figure 7: "PROFIBUS Device – Module Selection" window

By pressing the **Manual Module** button from the "PROFIBUS Device" window (Fig. 6) the "Add Module Manually" window appears (Fig. 8).

In this window is possible to add a Module manually, i.e. writing the configuration of the module (in hexadecimal).

The means of the fields are:

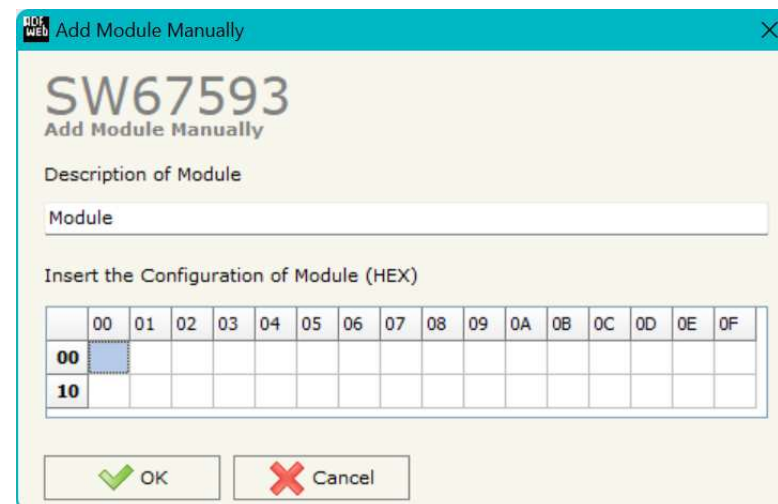
- In the field **Description of Module** a name of the Module is defined;
- In the field **Insert the Configuration of Module (HEX)** the configuration of the module is defined. The configuration must be write in hexadecimal mode (without prefix "0x" o "\$").

To modify a Module inserted manually, is neccessary to do a double click on the module to change in the "Select Module" list (Fig. 7, point (1)). It is possible to change only the module inserted manually.



Note:

The Values inserted in the table must between 00 and FF



	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
00																
10																

Figure 8: "Add/Modify Module Manually" window

USER PARAMETERS:

The section "User Parameters" is used to modify the parameters of the PROFIBUS slave (Fig. 9).

In this section there are:

- The List of all Parameters available for the PROFIBUS device ("User Parameters") (Fig. 9, point (1));
- The Configuration of all parameters in RAW ("Parameters in RAW (Hex)") (Fig. 9, point(2));
- The **"Use Parameter Inserted Manually"**, enable this option is possible to insert manually the parameters of Device and also of the Modules. Using the **"Modify User Parameters Manually"** button is possible to insert/modify the parametrization of the device (and/or modules). For more info see below. (Fig. 9, point(3));
- The admitted value for the selected parameter. It is possible to select the value desired and confirm it with the **"Apply"** button. If no value appears in this table, the "Min Value" and "Max Value" are the limit of the parameter. (Fig. 9, point(4));
- The **"Apply"** button is used to confirm the new value of the parameter, the **"Default"** button is used to load the factory value for the parameter. In **"New Value"** edit box it is possible to set the new value. (Fig. 9, point(5)).

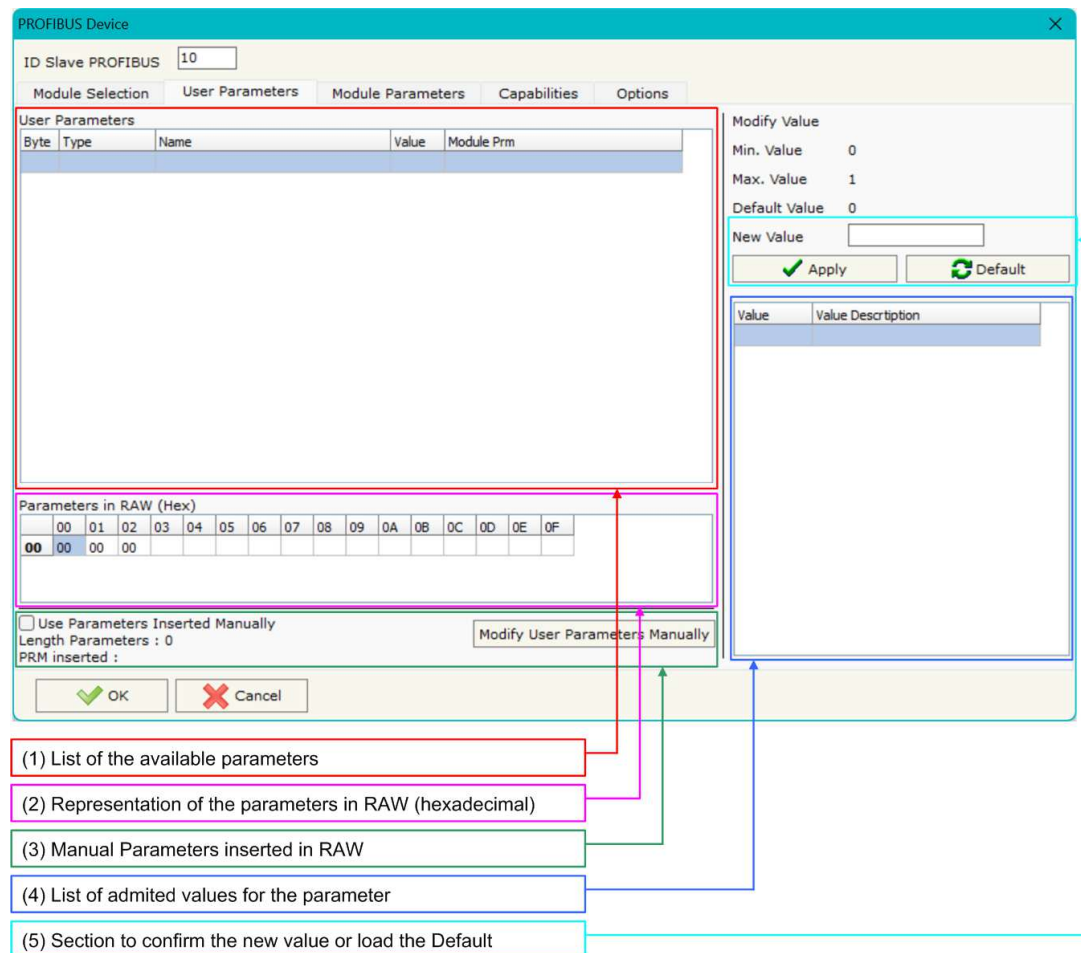


Figure 9: "PROFIBUS Device – User Parameters" window

By pressing the **"Modify User Parameters Manually"** button from the "PROFIBUS Device" window (Fig. 6) the "Add Module Manually" window appears (Fig. 10).

In this window is possible to add/modify the User and/or Modules Parameters manually, i.e. writing the configuration of the parameters (in hexadecimal).

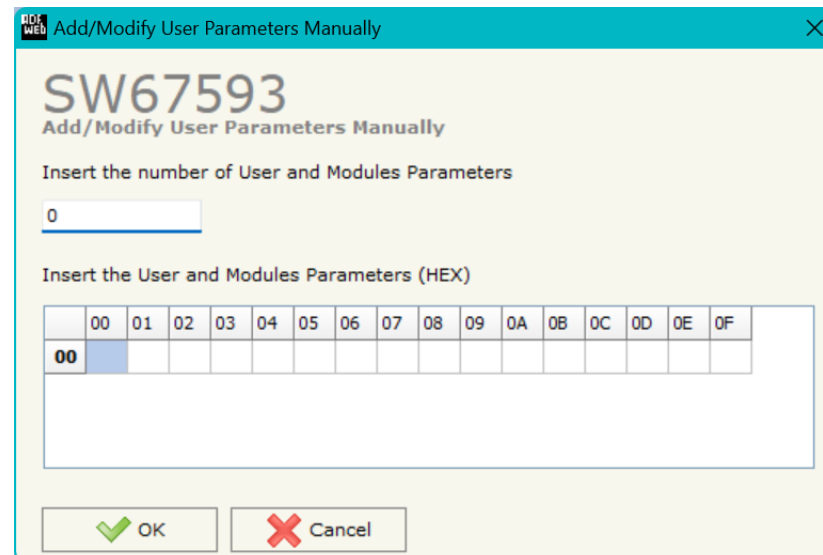
The means of the fields are:

- In the field **"Insert the number of User and Modules Parameters"** the number of byte for the parameter have to be inserted;
- In the field **"Insert the Configuration of Module (HEX)"** the configuration of the User and/or Modules Parameters is defined. The configuration must be write in hexadecimal mode (without prefix "0x" o "\$").



Note:

The Values inserted in the table must between 00 and FF



	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
00																

Figure 10: "Add/Modify User Parameters Manually" window

MODULE PARAMETERS:

The section "Module Parameters" is used to modify the parameters of the Modules (Fig. 11).

In this section there are:

- The List of all Module selected in the GSD file ("Available modules") (Fig. 11, point (1));
- The List of all Parameters available for the Module selected ("Parameters of module") (Fig. 11, point (2));
- The Configuration of all parameters in RAW for the Module selected ("Parameters in RAW (Hex)") (Fig. 11, point(3));
- The admitted value for the selected parameter. It is possible to select the value desired and confirm it with the **"Apply"** button. If no value appears in this table, the "Min Value" and "Max Value" are the limit of the parameter. (Fig. 11, point(4));
- The **"Apply"** button is used to confirm the new value of the parameter, the **"Default"** button is used to load the factory value for the parameter. In **"New Value"** edit box it is possible to set the new value. (Fig. 11, point(5));

PROFIBUS Device

ID Slave PROFIBUS 10

Module Selection User Parameters **Module Parameters** Capabilities Options

Available modules

Slot	Name	Input	Output	Module Pm
1	DI (PORT1)	8	0	No
2	DI (PORT2)	8	0	No
3	DI (PORT3)	8	0	No
4	DO (PORT4)	0	8	No
5	DO (PORT5)	0	8	No

Parameters of module

Byte	Type	Name	Value	Module Pm

Parameters in RAW (Hex)

00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
00															

Modify Value

Min. Value 0

Max. Value 1

Default Value 0

New Value

Apply Default

OK Cancel

(1) List of the available modules

(2) List of the available parameters for the module selected

(3) Representation of the parameters of module in RAW (hexadecimal)

(4) List of admitted values for the parameter

(5) Section to confirm the new value or load the Default

Figure 11: "PROFIBUS Device – Module Parameters" window

CAPABILITIES:

The section "Capabilities" is used only to show which features/baudrates available in the PROFIBUS device. The Green Icon indicate that capability/baudrate is available, the Red Icon indicate no compatibilities with that capability/baudrate (Fig. 12).

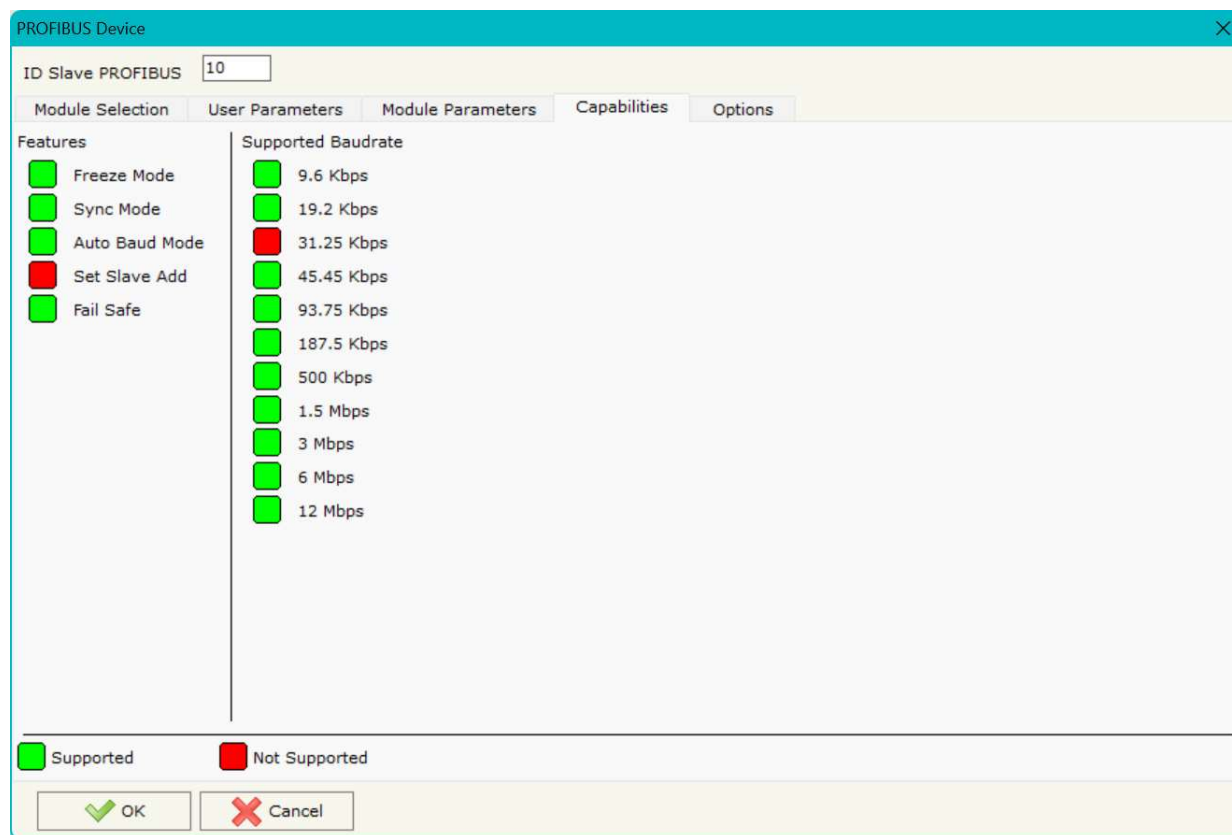


Figure 12: "PROFIBUS Device - Capabilities" window

OPTIONS:

The section "Options" is used to enable some option for each PROFIBUS device (Fig. 13).

The means of the fields are:

- In the field "**Enable Sync**" the PROFIBUS Sync command is enable. This option is enable only if the "Sync Mode" is supported by the device (see Capabilities section to check it);
- In the field "**Enable Freeze**" the PROFIBUS Freeze command is enable. This option is enable only if the "Freeze Mode" is supported by the device (see Capabilities section to check it);
- In the field "**Reset data if PROFIBUS master loses communication with the slave**" is possible to select to cancel the data of the slave if the Master lost the connection with the device;
- In the field "**Reset data if EtherNet/IP master doesn't write data with slave in ... milliseconds**" is possible to select to cancel the data send to the slave PROFIBUS if the Converter don't receive a EtherNet/IP frame within the time expressed in the field.

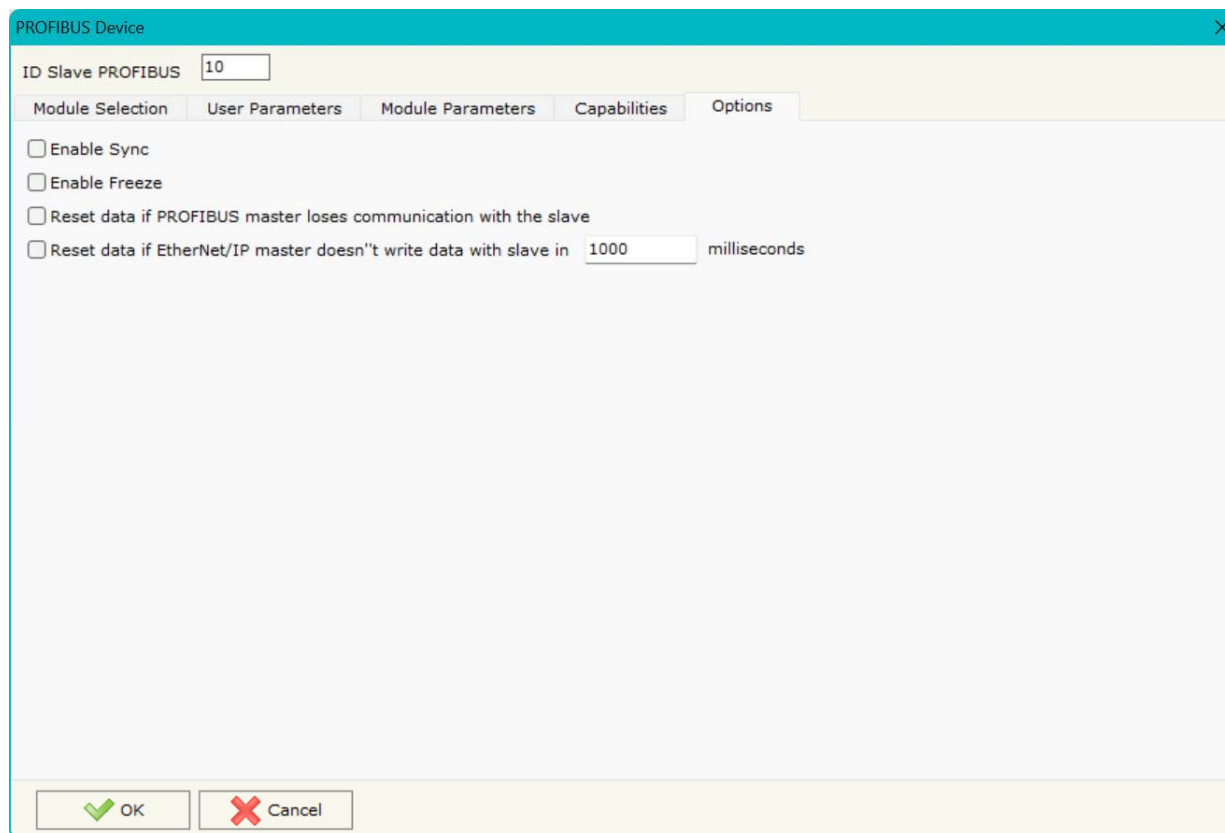


Figure 13: "PROFIBUS Device – Options" window

DEFINE OFFSET:

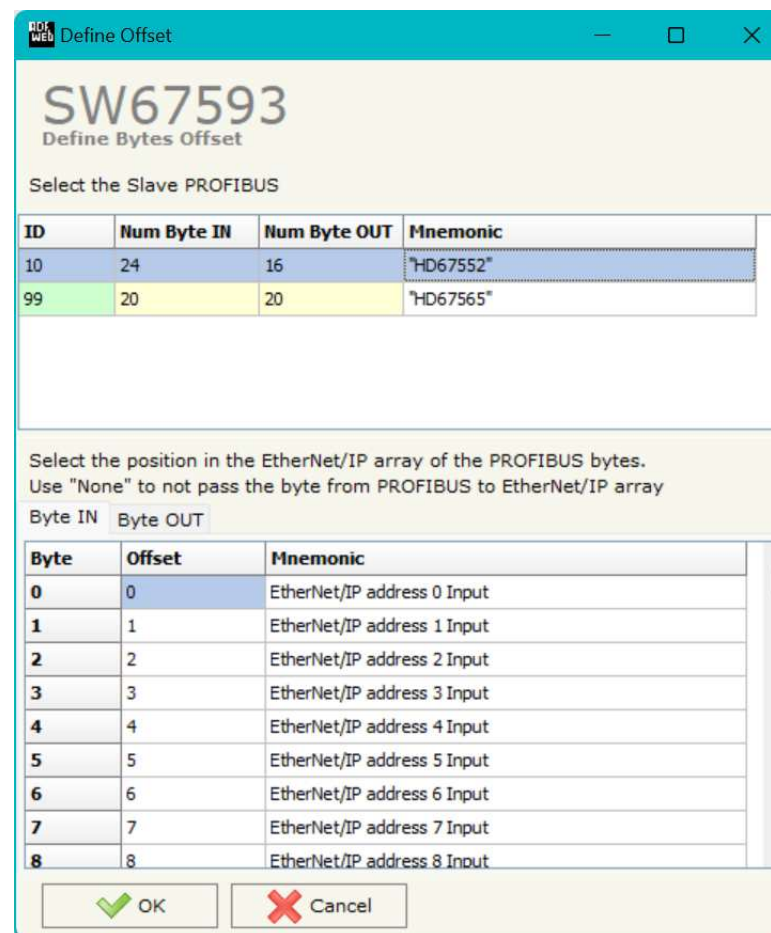
By pressing the **"Define Offset"** button from the main window for SW67593 (Fig. 2) the window "Define Offset" (Fig. 14) appears.

In this window is possible to select for each Byte IN and each Byte OUT of PROFIBUS where the EtherNet/IP information are located.



Note:

If you don't need to have on EtherNet/IP a byte you have to select None.



SW67593
Define Bytes Offset

Select the Slave PROFIBUS

ID	Num Byte IN	Num Byte OUT	Mnemonic
10	24	16	"HD67552"
99	20	20	"HD67565"

Select the position in the EtherNet/IP array of the PROFIBUS bytes.
Use "None" to not pass the byte from PROFIBUS to EtherNet/IP array

Byte IN Byte OUT

Byte	Offset	Mnemonic
0	0	EtherNet/IP address 0 Input
1	1	EtherNet/IP address 1 Input
2	2	EtherNet/IP address 2 Input
3	3	EtherNet/IP address 3 Input
4	4	EtherNet/IP address 4 Input
5	5	EtherNet/IP address 5 Input
6	6	EtherNet/IP address 6 Input
7	7	EtherNet/IP address 7 Input
8	8	EtherNet/IP address 8 Input

OK Cancel

Figure 14: "Define Offset" window

UPDATE DEVICE:

By pressing the **"Update Device"** button, it is possible to load the created Configuration into the device; and also the Firmware, if necessary. This by using the Ethernet port.

If you don't know the actual IP address of the device you have to use this procedure:

- Turn OFF the Device;
- Put Dip1 of 'Dip-Switch A' in ON position;
- Turn ON the device
- Connect the Ethernet cable;
- Insert the IP **"192.168.2.205"**;
- Select which operations you want to do;
- Press the **"Execute update firmware"** button to start the upload;
- When all the operations are "OK" turn OFF the Device;
- Put Dip1 of 'Dip-Switch A' in OFF position;
- Turn ON the device.

If you know the actual IP address of the device, you have to use this procedure:

- Turn ON the Device with the Ethernet cable inserted;
- Insert the actual IP of the Converter;
- Select which operations you want to do;
- Press the **"Execute update firmware"** button to start the upload;
- When all the operations are "OK" the device automatically goes at Normal Mode.

At this point the configuration/firmware on the device is correctly updated.

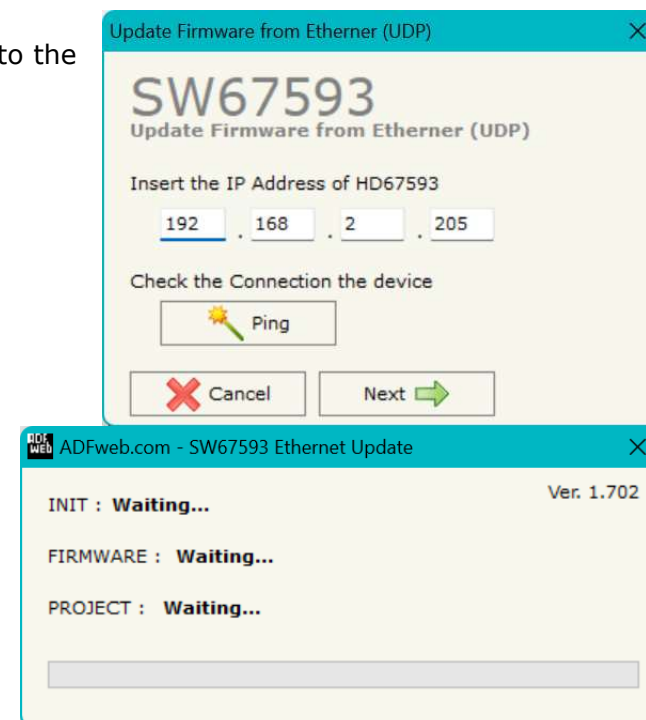


Figure 15: "Update device" windows

**Note:**

When you receive the device, for the first time, you also have to update the Firmware in the HD67593 device.

**Warning:**

If Fig. 16 appears when you try to do the Update try these points before seeking assistance:

- Try to repeat the operations for the updating;
- Try with another PC;
- Try to restart the PC;
- Check the LAN settings;
- If you are using the program inside a Virtual Machine, try to use in the main Operating System;
- If you are using Windows Seven, Vista, 8, 10 or 11 make sure that you have the administrator privileges;
- In case you have to program more than one device, using the "UDP Update", you have to cancel the ARP table every time you connect a new device on Ethernet. For do this you have to launch the "Command Prompt" and write the command "arp - d". Pay attention that with Windows Vista, Seven, 8, 10 or 11 you have to launch the "Command Prompt" with Administrator Rights;
- Pay attention at Firewall lock.

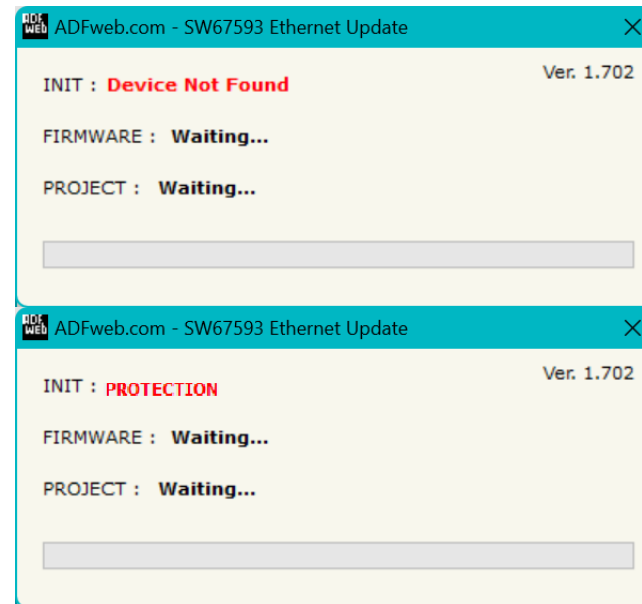
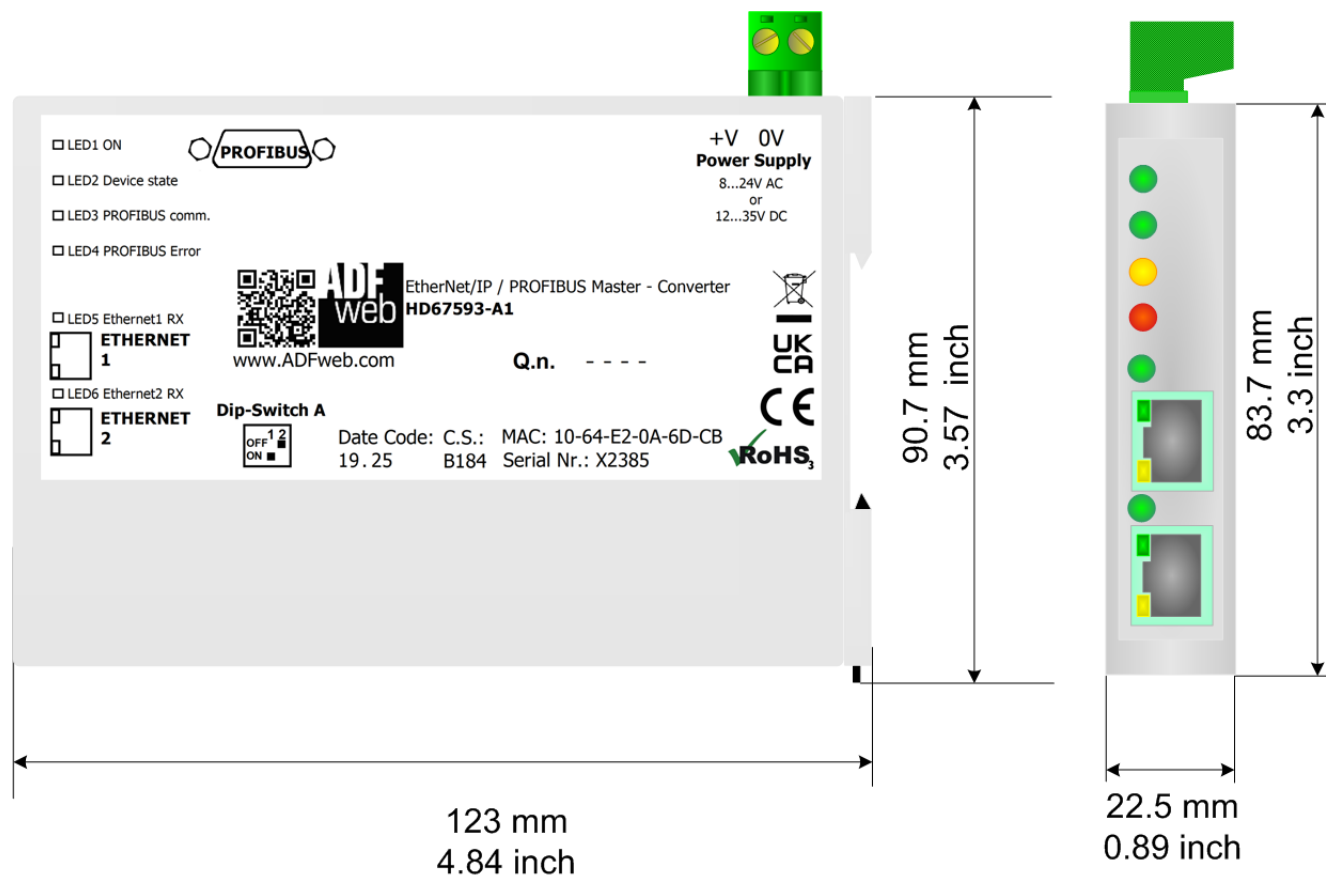


Figure 16: "Error" window

**Warning:**

In the case of HD67593 you have to use the software "SW67593": www.adfweb.com/download/filefold/SW67593.zip.

MECHANICAL DIMENSIONS:



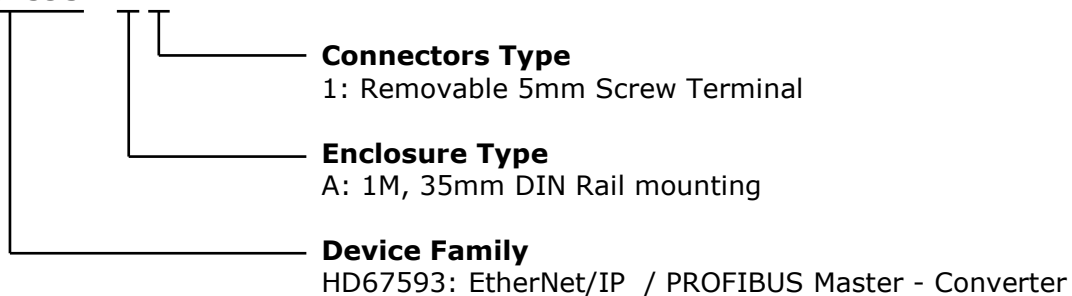
Housing: PC-ABS
Weight: 200g (Approx)

Figure 17: Mechanical dimensions scheme for HD67593-A1

ORDERING INFORMATION:

The ordering part number is formed by a valid combination of the following:

HD67593 - A 1



Order Code: **HD67593-A1** - EtherNet/IP / PROFIBUS Master - Converter

ACCESSORIES:

Order Code: **AC34011** - 35mm Rail DIN - Power Supply 220/240V AC 50/60Hz - 12 V DC

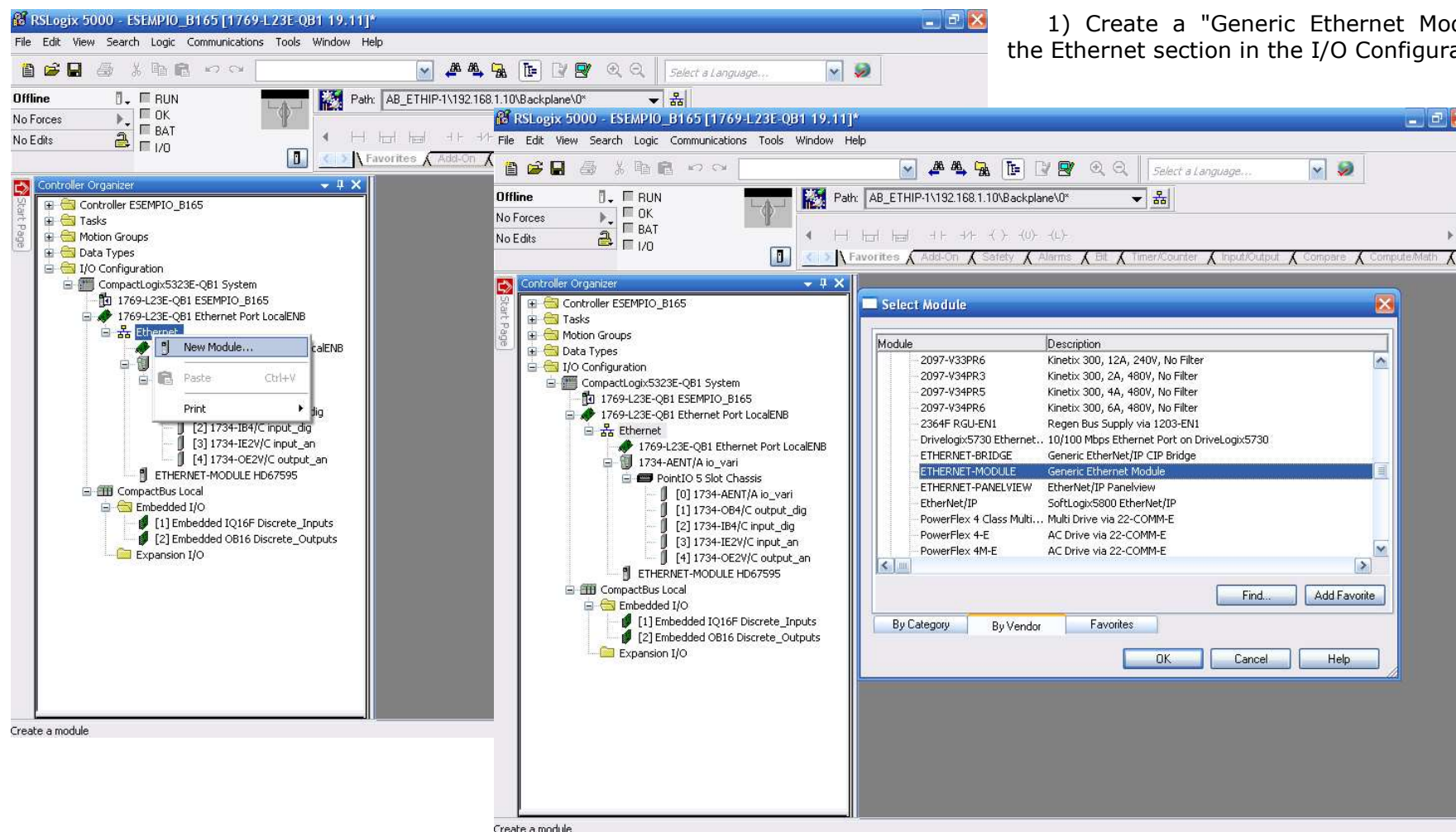
Order Code: **AC34012** - 35mm Rail DIN - Power Supply 220/240V AC 50/60Hz - 24 V DC

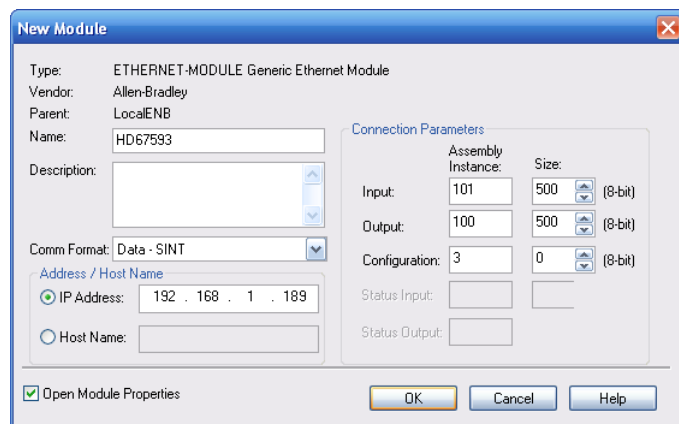
PLC CONFIGURATION:

The configuration and commissioning of the EtherNet/IP Converter as described on the following pages was accomplished with the help of the RSLogix 5000-software of Rockwell Automation. In case of using a control system from another supplier please attend to the associated documentation.

These are the steps to follow:

- 1) Create a "Generic Ethernet Module" under the Ethernet section in the I/O Configuration tree.





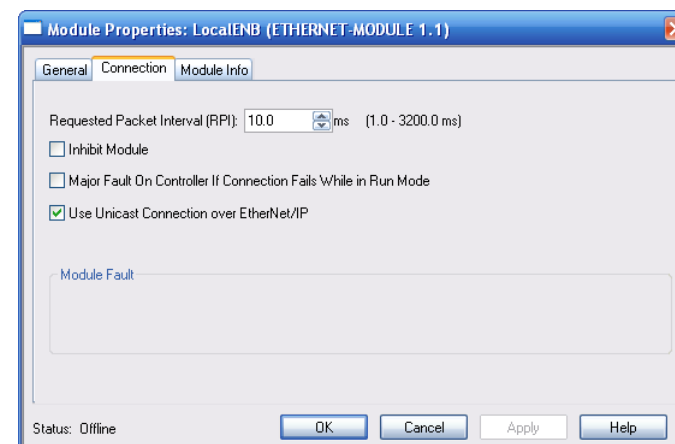
2) Edit the settings of the new Generic Ethernet Module. As shown in the screen shot below, the module was named "HD67593" and the IP-address assigned is 192.168.1.189.

For the Comm Format "Data – SINT" shall be selected as the data type.

The HD67593-A1 can use up to 496 bytes for input assembly instance 101 and 496 bytes for output assembly instance 100.

RSLogix 5000 requires a configuration assembly instance. Both modules do not provide a configuration assembly instance. Therefore it is allowed to select an instance of 3 and to set the value to zero.

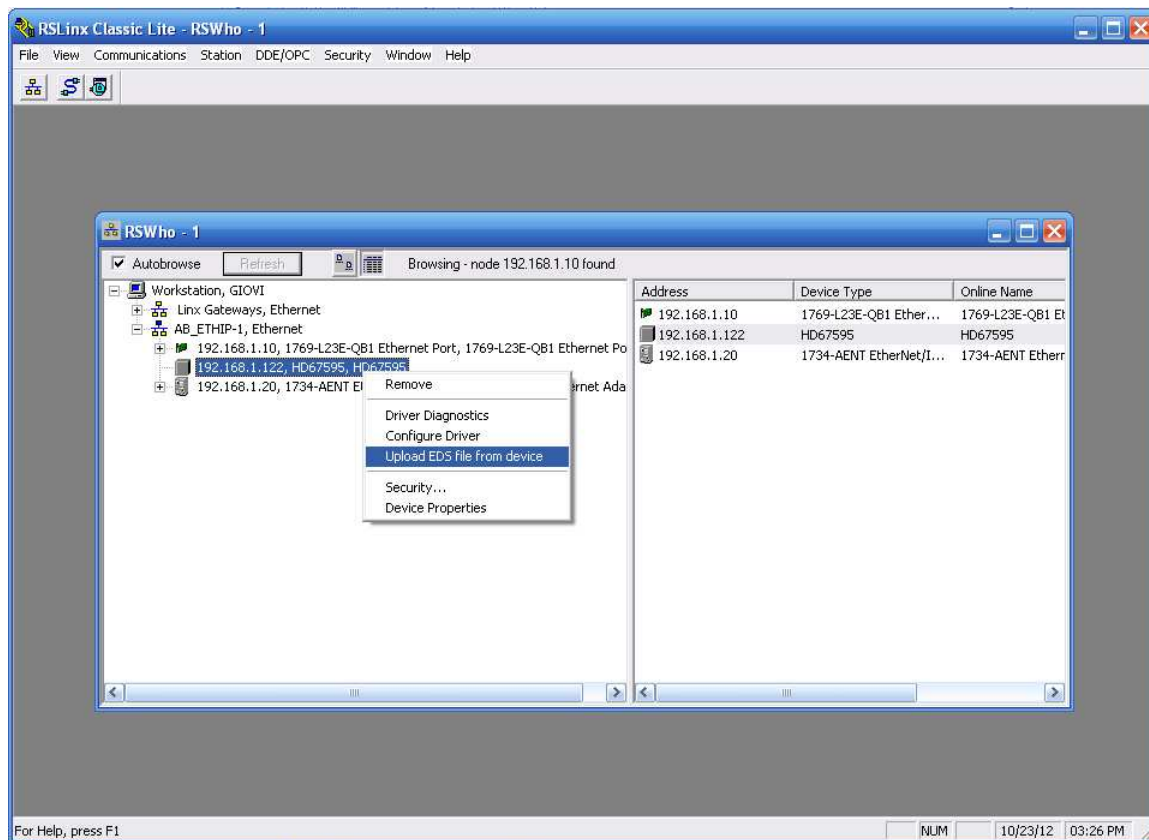
3) The setting of 10msec for the "Requested Packet Interval (RPI)" is adequate but it is possible to change this value as required. A lower value of 2ms shall not be selected.



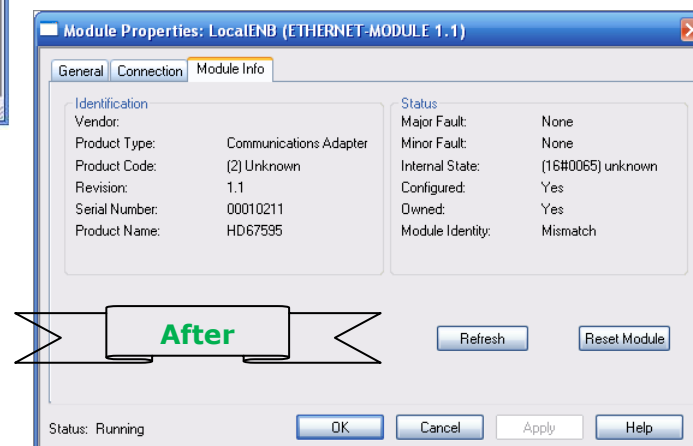
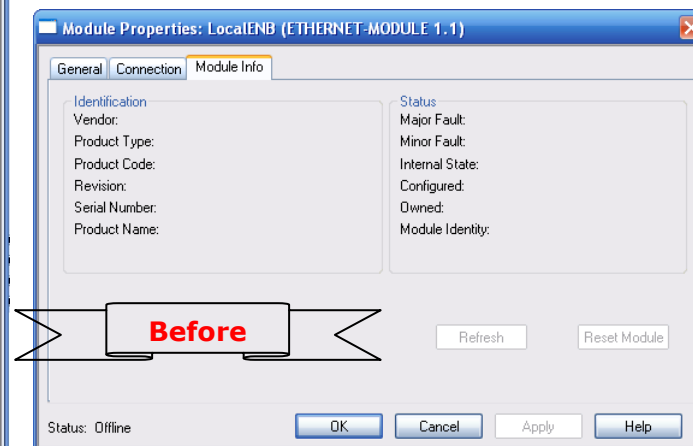
The screenshot shows the RSLogix 5000 software interface. On the left, the 'Controller Organizer' tree displays the project structure for 'ESEMPIO_B165'. The main window shows a table of tags for 'HD67595.I.Data'. The table has columns for Name, Value, Force Mask, Style, Data Type, and Properties. The tags are listed from HD67595.I.Data[0] to HD67595.I.Data[35]. The Properties panel on the right shows the details for the selected tag, including Name, Usage, Type, Alias For, Base Tag, Data Type, Scope, External Access, Style, Constant, Required, and Visible.

Name	Value	Force Mask	Style	Data Type
HD67595.I.Data	{...}	{...}	Hex	SINT[46]
HD67595.I.Data[0]	16#21		Hex	SINT
HD67595.I.Data[1]	16#22		Hex	SINT
HD67595.I.Data[2]	16#23		Hex	SINT
HD67595.I.Data[3]	16#24		Hex	SINT
HD67595.I.Data[4]	16#25		Hex	SINT
HD67595.I.Data[5]	16#26		Hex	SINT
HD67595.I.Data[6]	16#27		Hex	SINT
HD67595.I.Data[7]	16#28		Hex	SINT
HD67595.I.Data[8]	16#00		Hex	SINT
HD67595.I.Data[9]	16#00		Hex	SINT
HD67595.I.Data[10]	16#00		Hex	SINT
HD67595.I.Data[11]	16#00		Hex	SINT
HD67595.I.Data[12]	16#00		Hex	SINT
HD67595.I.Data[13]	16#00		Hex	SINT
HD67595.I.Data[14]	16#00		Hex	SINT
HD67595.I.Data[15]	16#00		Hex	SINT
HD67595.I.Data[16]	16#00		Hex	SINT
HD67595.I.Data[17]	16#00		Hex	SINT
HD67595.I.Data[18]	16#00		Hex	SINT
HD67595.I.Data[19]	16#00		Hex	SINT
HD67595.I.Data[20]	16#00		Hex	SINT
HD67595.I.Data[21]	16#00		Hex	SINT
HD67595.I.Data[22]	16#00		Hex	SINT
HD67595.I.Data[23]	16#00		Hex	SINT
HD67595.I.Data[24]	16#00		Hex	SINT
HD67595.I.Data[25]	16#00		Hex	SINT
HD67595.I.Data[26]	16#00		Hex	SINT
HD67595.I.Data[27]	16#00		Hex	SINT
HD67595.I.Data[28]	16#00		Hex	SINT
HD67595.I.Data[29]	16#00		Hex	SINT
HD67595.I.Data[30]	16#00		Hex	SINT
HD67595.I.Data[31]	16#00		Hex	SINT
HD67595.I.Data[32]	16#00		Hex	SINT
HD67595.I.Data[33]	16#00		Hex	SINT
HD67595.I.Data[34]	16#00		Hex	SINT
HD67595.I.Data[35]	16#00		Hex	SINT

4) After the configuration is completed, the controller tags are created.



5) With "RSLinks Classic Lite", after have done a network scan (RSWho), and finding the EtherNet/IP device, it is possible to load the EDS file for the device in order to have the "Module Info" compiled.



DISCLAIMER

All technical content within this document can be modified without notice. The content of the document content is a recurring audit. For losses due to fire, earthquake, third party access or other accidents, or intentional or accidental abuse, misuse, or use under abnormal conditions repairs are charged to the user. ADFweb.com S.r.l. will not be liable for accidental loss of use or inability to use this product, such as loss of business income. ADFweb.com S.r.l. shall not be liable for consequences of improper use.

OTHER REGULATIONS AND STANDARDS

WEEE INFORMATION



Disposal of old electrical and electronic equipment (as in the European Union and other European countries with separate collection systems).

This symbol on the product or on its packaging indicates that this product may not be treated as household rubbish. Instead, it should be taken to an applicable collection point for the recycling of electrical and electronic equipment. If the product is disposed correctly, you will help prevent potential negative environmental factors and human health, which could otherwise be caused by inappropriate disposal. The recycling of materials will help to conserve natural resources. For more information about recycling this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

RESTRICTION OF HAZARDOUS SUBSTANCES DIRECTIVE



The device respects the 2002/95/EC Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (commonly referred to as Restriction of Hazardous Substances Directive or RoHS).

CE MARKING



The product conforms with the essential requirements of the applicable EC directives.

WARRANTIES AND TECHNICAL SUPPORT:

For fast and easy technical support for your ADFweb.com SRL products, consult our internet support at www.adfweb.com. Otherwise contact us at the address support@adfweb.com

RETURN POLICY:

If while using your product you have any problem and you wish to exchange or repair it, please do the following:

- Obtain a Product Return Number (PRN) from our internet support at www.adfweb.com. Together with the request, you need to provide detailed information about the problem.
- Send the product to the address provided with the PRN, having prepaid the shipping costs (shipment costs billed to us will not be accepted).

If the product is within the warranty of twelve months, it will be repaired or exchanged and returned within three weeks. If the product is no longer under warranty, you will receive a repair estimate.



ADFweb.com S.r.l.
Via Strada Nuova, 17
IT-31010 Mareno di Piave
TREVISO (Italy)
Phone +39.0438.30.91.31
Fax +39.0438.49.20.99
www.adfweb.com

